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09/852,729	05/11/2001	Christian Francois Michel Dujarric	208536US2	5224

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ALEXANDRIA, VA 22314

EXAMINER

FIELDS, COURTNEY D

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/852,729

Applicant(s)

DUJARRIC, CHRISTIAN  
FRANCOIS MICHEL

Examiner

Courtney D. Fields

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 May 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. Claims 1-20 are pending.
2. The Information Disclosure Statement respectfully submitted on 10 July 2001 has been considered by the Examiner.

### ***Claim Objections***

1. Claim 15 is objected to because of the following informalities: On page 37, line 26, "(33)" should be removed. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Clark (U.S. Patent No. 5, 982, 897). Referring to the rejection of claims 1, 15, and 19, Clark discloses a method and system for satellite positioning using positioning signals which are sent out by the various satellites of a satellite constellation under the control of a set of ground stations from which the satellites receive control signals, and which are available to be picked up by individual user receivers, which method consists essentially: emitting from the set of ground stations periodically renewed direct transformation functions which are addressed respectively to each satellite of the

satellite constellation and applying the direct transformation function received by each satellite to encode the positioning signals emitted therefrom and further upon each request from a user receiver addressed to a user servicing station, verifying that it has right to a privileged-user status and in the event that the verification is positive, addressing to the user receiver reverse transformation functions that are the satellites from which it receives positioning signals, whereby the reverse transformation functions constitute an interpretation key for interpreting the positioning signals by applying the reverse transformation functions for decoding them in Column 4, lines 33-65.

As per claim 2, Clark discloses the claimed limitation wherein each request from a user receiver calling for the interpretation key includes a copy of the latest coded positioning signals it has picked up from the satellites, and the verification of the privileged-user status comprises the sub-stages consisting in decoding the coded positioning signals included in the request, in deducing therefrom the position of the receiver and in verifying that this position is in conformity with the route plan in Column 3, lines 50-67, Column 4, lines 1-10.

As per claim 3, Clark discloses the claimed limitation wherein an identifier is supplied to the user during a mission declaration by this user, and wherein the identifier is broadcast to various user servicing stations to which the user receiver is likely to address a request calling for the interpretation key in Column 5, lines 36-44.

As per claim 4, Clark discloses the claimed limitation wherein supplying an encryption code to the user during a mission declaration by this user, and wherein the user.

servicing station receiving the request uses the encryption code to send the interpretation key to the user receiver in Column 7, lines 1-14.

As per claim 5, Clark discloses the claimed limitation wherein the encryption code is used for an authentication process carried out by the privileged-user receiver by comparison between the signal carrying the interpretation key received from the user servicing station in response to the request and the encryption code, the latter being known to the privileged user in Column 6, lines 33-39.

As per claim 6, Clark discloses the claimed limitation wherein comprising a preliminary stage of invoicing the user benefiting from the privileged-user status in Column 6, lines 39-43.

As per claim 7, Clark discloses the claimed limitation wherein in order to ensure verification of authenticity and integrity of the positioning signals interpreted, a comparison is carried out by the privileged-user receiver between the signals received from the satellites and the signals received from the services station processing the request, in order thereby to verify the presence of the same specific fragment respectively accompanying the positioning signals sent out by each satellite and the interpretation key addressed to the user receiver in response to its request in Column 5, lines 57-63, Column 6, lines 28-43.

As per claim 8, Clark discloses the claimed limitation wherein including in each request calling for the interpretation key sent by the privileged-user receiver, a copy of the latest positioning signals received by the receiver in their transformed form, decoding at the ground stations the transformed positioning signals included in the request, and

deducing the position of the receiver therefrom, calculating a degree of precision of the positioning signals as a function of the deduced position and/or of the operational state of the system, and addressing to the receiver an information of the degree of precision thus calculated in Column 7, lines 50-67, Column 8, lines 1-5.

As per claim 9, Clark discloses the claimed limitation wherein each request originating from a plurality of user receivers includes a copy of the latest coded positioning signals received by the receivers, and further comprising decoding the transformed positioning signals included in each request, deducing therefrom the positions of the various corresponding receivers, and addressing to at least some of the user receivers a position information relating to other users among the plurality in Column 7, lines 1-33.

As per claim 10, Clark discloses the claimed limitation wherein each request originating from a plurality of user receivers includes a copy of the latest coded positioning signals received by the receivers, and further comprising decoding the transformed positioning signals included in each request deducing therefrom the positions of the various corresponding receivers, and addressing to a traffic control service a position information relating to the position of at least some of the user receivers among the plurality in Column 5, lines 16-26.

As per claim 11, Clark discloses the claimed limitation wherein a basic interpretation key is delivered to any user having a right to at least a first degree of precision in interpreting the positioning signals, and a supplementary interpretation key granting access to a higher-level quality of service, especially via a better degree of precision, is reserved for the users having the benefit of a second privilege in Column 4, lines 45-65.

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As per claim 12, Clark discloses the claimed limitation wherein each transformation function participating in the definition of the interpretation key is announced to the user servicing stations with an advance in time with respect to its application to the positioning signals sent out by the corresponding satellite in Column 7, lines 50-67, Column 8, lines 1-30.

As per claim 13, Clark discloses the claimed limitation wherein the request signal for the interpretation key sent out by the user receiver and intended for a user servicing station comprises a copy of the positioning signals emitted from a plurality of satellites as received by the user receiver, and wherein the signals thus recopied are processed by the user servicing station applying to them the interpretation key to determine the position of the user receiver for use for recognition of the privileged-user status or for any other monitoring purpose in Column 5, lines 45-56, Column 6, lines 28-53.

As per claim 14, Clark discloses the claimed limitation wherein comprising acquiring again positioning signals by the user receiver from the plurality of satellites after reception of the interpretation key constituted by the set of relevant reverse transformation functions, and applying the latter to the positioning signals newly acquired, and deducing therefrom a new position information, thereby avoiding that movement of the receiver during the propagation of the signals and the processing of the requests result in reducing the precision of the position information in Column 4, lines 11-20.

As per claim 16, Clark discloses the claimed limitation wherein each privileged-user receiver further comprises means for receiving the interpretation key addressed to it

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from the services station in response to its request, and from the services station in response to its request, and calculating means for combining the positioning signals with the interpretation key and deducing therefrom the position information in Column 5. As per claim 17, Clark discloses the claimed limitation wherein the interpretation key consists of defined reverse transformation functions which are the inverse of direct transformation functions applied respectively by the various satellites within range of the user receiver for emitting the positioning signals sent therefrom in Column 5, lines 36-44.

As per claim 18, Clark discloses the claimed limitation wherein means for generating the direct transformation functions to be applied at the satellites for deriving the positioning signals and addressing them to the various satellites for which they are respectively intended, in addition to the usual control signals such as their orbital parameters and synchronization information, and means for calculating the reverse transformation functions and for broadcasting them any user servicing station within the system for using them in deriving and transmitting the interpretation key necessary to each user receiver sending a request to that effect, subject to the verification that the corresponding user is allowed the privileged-user status in Column 4, lines 33-65.

As per claim 20, Clark discloses the claimed limitation wherein means for automatically repeating the emission of the request signal with a predefined periodicity in Column 8, lines 9-43.



**Conclusion**

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gaukel (U.S. Patent No. 6,100,806) discloses apparatus and method for continuous electronic monitoring and tracking of individuals.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney D. Fields whose telephone number is 571-272-3871. The examiner can normally be reached on Mon - Thurs. 6:00 - 4:00 pm; off every Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*cds*

cdf  
November 9, 2004

*Matthew B. Smithers*  
**MATTHEW SMITHERS**  
**PRIMARY EXAMINER**  
*Art Unit 2137*